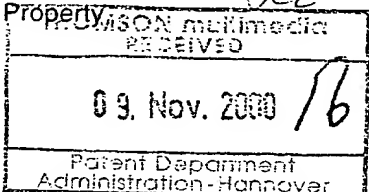


From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

| | |
|---|--|
| To: | |
| Rossmanith, Manfred DEUTSCHE THOMSON-BRANDT GMBH Licensing & Intellectual Property Karl-Wiechert-Allee 74 D-30625 Hannover ALLEMAGNE | |
|  | |

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT
(PCT Rule 71.1)

| | | | |
|---|--|--|--|
| Applicant's or agent's file reference PD980061 ✓ | | IMPORTANT NOTIFICATION | |
| International application No. PCT/EP99/06478 | International filing date (day/month/year) 03/09/1999 | Priority date (day/month/year) 10/09/1998 | |
| Applicant DEUTSCHE THOMSON-BRANDT GMBH et al. | | | |

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.


4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

RCA PD980061
CITED BY APPLICANT

| | |
|--|---|
| Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized officer SCHALINATUS, D Tel. +49 89 2399-8242 |
|--|---|



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



| | | |
|--|---|--|
| Applicant's or agent's file reference PD980061 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP99/06478 | International filing date (day/month/year) 03/09/1999 | Priority date (day/month/year) 10/09/1998 |
| International Patent Classification (IPC) or national classification and IPC H04N5/50 | | |
| Applicant DEUTSCHE THOMSON-BRANDT GMBH et al. | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

| | |
|---|--|
| Date of submission of the demand 16/03/2000 | Date of completion of this report 08.11.2000 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized officer Chandler, W Telephone No. +49 89 2399 2235  |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP99/06478

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-13 as originally filed

Claims, No.:

1-20 as received on 28/07/2000 with letter of 27/07/2000

Drawings, sheets:

1,2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP99/06478

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|------|---------------------------------|
| Novelty (N) | Yes: | Claims 2-4, 6, 7, 13, 14, 18-19 |
| | No: | Claims 1, 5, 8-12, 15-17, 20 |
| Inventive step (IS) | Yes: | Claims |
| | No: | Claims 2-4, 6, 7, 13, 14, 18-19 |
| Industrial applicability (IA) | Yes: | Claims |
| | No: | Claims 1-20 |

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Concerning point V of the report:

1. The following document is cited in this report:

D1: WO 98 21877 A (Hyundai Electronics America) 22 May 1998
D2: DE 44 17 634 A (Gold Star Co.) 24 November 1994
D3: US-A-5 323 240 (Amano Toshio et al) 21 June 1994
D4: PAJ vol. 1998, no. 11, 30 September 1998 & JP 10 164447 A (Matsushita Electric Ind Co Ltd), 19 June 1998
2. The application concerns the problem of determining, and displaying channels of interest in a television apparatus. In particular, the applicant states that the application concerns the problem of returning to the "channel of interest" after "zapping", which is jumping from one program to the next. Conventional TV sets often provide a last station key to switch back to the previously selected channel. However, after zapping this channel may not be the same as the "channel of interest". The alleged invention solves the problem by storing a program as the "channel of interest" if the reception of a channel exceeds a predetermined time interval. The user can thus return easily to the "channel of interest".
3. However, the steps of claim 1 are not considered to define the above idea sufficiently to delimit it from the prior art. Thus, although D1 is primarily concerned with creating a television user profile, it discloses at page 6, lines 12 to 34, determining if the reception of a channel exceeds a predetermined time interval. The passage at page 5, line 29 discloses that the viewer profile is stored. Thus claim 1 differs from D1 only in that the stored channel is referred to as a "channel of interest", whereas in D1 it is called a "preferred" channel. Since a preferred channel must be a "channel of interest" by definition, this is not a real difference.
4. Documents D2 (abstract, lines 2 to 6), D3 (column 1, lines 51 to 56) and D4 (abstract, lines 5 to 7) are considered to be equally relevant for the same reasons.
5. Claim 1 is not therefore considered to be new.
6. The applicant considers that D1 (or any of the prior art methods) would store the

channel with the longest viewing time as the "channel of interest". However, D1 is considered to store all the channels with a viewing time longer than the predetermined interval as "preferred channels". As stated above, this is considered to fall under the present claim. The applicant argues if the reception time of the present channel exceeds the interval, the method of the invention replaces the old channel of interest by the present channel. However, firstly it is pointed out that the characterising part of the claim stores "a" channel of interest, rather than "the" channel, thus not delimitating over D1. Moreover, storing just one channel of interest would be an obvious special case of D1. The applicant also argues that D1 sorts the channels with respect to total reception time, which is not the case in the invention. However, this argument, besides relating to a "negative" feature that is not claimed, appears to be wrong because claim 11 of the application contains the feature of storing the channels "on the basis of reception duration" which appears to cover sorting.

7. It appears that in order to correspond to the applicant's idea of the invention, claim 1 requires details relating to the steps of recalling and using the "channel of interest", at least. However, these details are not in any of the claims on file.
8. The methods of determining the reception duration given in claims 2 to 4 are considered to be obvious matters of design and accordingly not to add anything inventive.
9. D1 discloses using a variable time interval, so that claim 5 is not considered to be new. The different time intervals in claims 6 and 7 are considered to follow as obvious possibilities and therefore not to add anything inventive.
10. The various possibilities for storing the channels of interest in claims 8 to 12 are considered to be disclosed in D1 and therefore not to add anything new. Those in claims 13 and 14 are considered to be obvious matters of design and therefore not to add anything inventive.
11. The channel identifiers labelled with reference sign 506 in Figure of D1 are considered to fall under the definition of the "video information" and "pictures" in claims 15 to 17, so that these claims are not considered to add anything new.

12. The generally known features of using voice input and using "channel-specific data" in claims 18 and 19 are not considered to add anything inventive.
13. The idea of defining a channel as being not of interest if the reception duration is too low as in claim 20 is not considered to be new essentially for the reasons given in connection with claim 1. In D1, if the reception duration is below the predetermined time, it is not stored and is by definition "not of interest". The applicant argues that the feature enables automatic skipping to the next channel during zapping if a "not interesting program" is found. However, even if this were correctly claimed, it would appear to be another invention and the question of unity would arise.

Concerning point VII of the report:

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor are these documents identified therein.
2. A document reflecting the prior art described on page 1 is not identified in the description (Rule 5.1(a)(ii) PCT).
3. The independent claims are not considered to be in the correct two-part form, in accordance with Rule 6.3(b) PCT. As mentioned above, the prior art discloses determining when the reception duration exceeds a predetermined time interval and then storing the channel.

Concerning point VIII of the report:

1. Claim 20 defines the condition "as soon as the reception duration falls below a predetermined time". This is not considered to be clear because the expression "as soon as" implies a forward progression of time for which the expression "falls below" makes no sense.

PCT/EP99/06478
PD980061*Hi

Hannover, 27.07.2000

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Claims

1. Method for storage of a channel in a consumer electronics appliance which can be switched over between different channels, wherein the reception duration of the current channel is determined, characterized in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.
2. Method according to Claim 1, characterized in that the reception duration of the current channel is determined permanently.
3. Method according to Claim 1, characterized in that the reception duration of the current channel is determined only until the time interval is reached.
4. Method according to Claim 1, characterized in that the reception duration is determined on switching over from the current channel to a further channel.
5. Method according to Claim 1, characterized in that the time interval is set by the manufacturer and/or the user.
6. Method according to Claim 1, characterized in that various time intervals are set.
7. Method according to Claim 6, characterized in that a first short time interval, a second medium time interval and a third long time interval are provided, in order in this way to determine channels of differing interest.
8. Method according to Claim 1, characterized in that the reception duration of the current channel is

PCT/EP99/06478
PD980061*Hi

Hannover, 27.07.2000

15

determined, and in that, on switching over from the current channel to a further channel, the reception duration of the further channel is determined, and in that the channel having the longest reception duration is stored as the time interval.

9. Method according to Claim 1, characterized in that all the channels which exceed the time interval are stored as channels of interest.

10. Method according to Claim 9, characterized in that a time indication and/or the respective reception duration are/is also stored for all channels of interest.

11. Method according to Claim 10, characterized in that the data are stored and/or called chronologically and/or on the basis of the reception duration.

12. Method according to Claim 1, characterized in that a changeover to the channel of interest is made by operating a control element.

13. Method according to Claim 1, characterized in that a changeover to the last but one channel of interest is made by operating the control element once again.

14. Method according to Claims 7 and 9, characterized in that a plurality of control elements are provided for different channels of interest.

15. Method according to Claim 1, characterized in that a picture relating to the channels of interest is also stored as video information in a frame memory.

16. Method according to Claim 15, characterized in that, when the control element is operated, the video

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PD980061*Hi

Hannover, 27.07.2000

16

information and/or the channel information are/is also overlaid.

17. Method according to Claim 15, characterized in
5 that a plurality of pictures are displayed on the screen by operating a control element, and can be selected via a control element.

18. Method according to Claim 1, characterized in
10 that the channel of interest is called up by voice input.

19. Method according to Claim 1, characterized in
that channel-specific data such as a channel name and/or
transmitter frequency and/or channel details and/or
15 ShowView data and/or teletext information are also
stored.

20. Method for determining a channel in a consumer
electronics appliance which can be switched over between
20 different channels, wherein the reception duration of the
current channel is determined, characterized in that, as
soon as the reception duration falls below a
predetermined time interval, the channel is defined as a
channel which is not of interest.

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Claims

1. Method for storage of a channel in a consumer electronics appliance which can be switched over between
5 different channels, characterized in that the reception duration of the current channel is determined, and in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.
- 10 2. Method according to Claim 1, characterized in that the reception duration of the current channel is determined permanently.
- 15 3. Method according to Claim 1, characterized in that the reception duration of the current channel is determined only until the time interval is reached.
4. Method according to Claim 1, characterized in
20 that the reception duration is determined on switching over from the current channel to a further channel.
5. Method according to Claim 1, characterized in that the time interval is set by the manufacturer and/or
25 the user.
6. Method according to Claim 1, characterized in that various time intervals are set.
- 30 7. Method according to Claim 6, characterized in that a first short time interval, a second medium time interval and a third long time interval are provided, in order in this way to determine channels of differing interest.
- 35 8. Method according to Claim 1, characterized in that the reception duration of the current channel is determined, and in that, on switching over from the

current channel to a further channel, the reception duration of the further channel is determined, and in that the channel having the longest reception duration is stored as the time interval.

5

9. Method according to Claim 1, characterized in that all the channels which exceed the time interval are stored as channels of interest.

10 10. Method according to Claim 9, characterized in that a time indication and/or the respective reception duration are/is also stored for all channels of interest.

11. Method according to Claim 10, characterized in
15 that the data are stored and/or called chronologically and/or on the basis of the reception duration.

12. Method according to Claim 1, characterized in that a changeover to the channel of interest is made by
20 operating a control element.

13. Method according to Claim 1, characterized in that a changeover to the last but one channel of interest is made by operating the control element once again.

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14. Method according to Claims 7 and 9, characterized in that a plurality of control elements are provided for different channels of interest.

30 15. Method according to Claim 1, characterized in that a picture relating to the channels of interest is also stored as video information in a frame memory.

16. Method according to Claim 15, characterized in
35 that, when the control element is operated, the video information and/or the channel information are/is also overlaid.

17. Method according to Claim 15, characterized in that a plurality of pictures are displayed on the screen by operating a control element, and can be selected via a control element.

5

18. Method according to Claim 1, characterized in that the channel of interest is called up by voice input.

19. Method according to Claim 1, characterized in that channel-specific data such as a channel name and/or transmitter frequency and/or channel details and/or ShowView data and/or teletext information are also stored.

20. Method for determining a channel in a consumer electronics appliance which can be switched over between different channels, characterized in that the reception duration of the current channel is determined, and in that, as soon as the reception duration falls below a predetermined time interval, the channel is defined as a channel which is not of interest.

21. Circuit for a method for determining a channel of interest in a consumer electronics appliance having a control unit, having a memory, having a programme signal and having control elements, characterized in that, when the control elements (BE, IR) are used for switching over, the control unit (SE) detects the reception duration, for how long the respective channel was activated, and, as soon as the reception duration falls below a previously set time interval, stores this channel as a channel of interest in the memory (SP).

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

| | | |
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| Applicant's or agent's file reference PD980061 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP99/06478 | International filing date (day/month/year) 03/09/1999 | Priority date (day/month/year) 10/09/1998 |
| International Patent Classification (IPC) or national classification and IPC H04N5/50 | | |
| Applicant DEUTSCHE THOMSON-BRANDT GMBH et al. | | |



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

| | |
|---|--|
| Date of submission of the demand 16/03/2000 | Date of completion of this report 08.11.2000 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized officer Chandler, W Telephone No. +49 89 2399 2235  |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/06478

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-13 as originally filed

Claims, No.:

1-20 as received on 28/07/2000 with letter of 27/07/2000

Drawings, sheets:

1,2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/06478

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|------|--------|--------------------------|
| Novelty (N) | Yes: | Claims | 2-4, 6, 7, 13, 14, 18-19 |
| | No: | Claims | 1, 5, 8-12, 15-17, 20 |
| Inventive step (IS) | Yes: | Claims | |
| | No: | Claims | 2-4, 6, 7, 13, 14, 18-19 |
| Industrial applicability (IA) | Yes: | Claims | |
| | No: | Claims | 1-20 |

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Concerning point V of the report:

1. The following document is cited in this report:

D1: WO 98 21877 A (Hyundai Electronics America) 22 May 1998

D2: DE 44 17 634 A (Gold Star Co.) 24 November 1994

D3: US-A-5 323 240 (Amano Toshio et al) 21 June 1994

D4: PAJ vol. 1998, no. 11, 30 September 1998 & JP 10 164447 A (Matsushita Electric Ind Co Ltd), 19 June 1998

2. The application concerns the problem of determining, and displaying channels of interest in a television apparatus. In particular, the applicant states that the application concerns the problem of returning to the "channel of interest" after "zapping", which is jumping from one program to the next. Conventional TV sets often provide a last station key to switch back to the previously selected channel. However, after zapping this channel may not be the same as the "channel of interest". The alleged invention solves the problem by storing a program as the "channel of interest" if the reception of a channel exceeds a predetermined time interval. The user can thus return easily to the "channel of interest".
3. However, the steps of claim 1 are not considered to define the above idea sufficiently to delimit it from the prior art. Thus, although D1 is primarily concerned with creating a television user profile, it discloses at page 6, lines 12 to 34, determining if the reception of a channel exceeds a predetermined time interval. The passage at page 5, line 29 discloses that the viewer profile is stored. Thus claim 1 differs from D1 only in that the stored channel is referred to as a "channel of interest", whereas in D1 it is called a "preferred" channel. Since a preferred channel must be a "channel of interest" by definition, this is not a real difference.
4. Documents D2 (abstract, lines 2 to 6), D3 (column 1, lines 51 to 56) and D4 (abstract, lines 5 to 7) are considered to be equally relevant for the same reasons.
5. Claim 1 is not therefore considered to be new.
6. The applicant considers that D1 (or any of the prior art methods) would store the

channel with the longest viewing time as the "channel of interest". However, D1 is considered to store all the channels with a viewing time longer than the predetermined interval as "preferred channels". As stated above, this is considered to fall under the present claim. The applicant argues if the reception time of the present channel exceeds the interval, the method of the invention replaces the old channel of interest by the present channel. However, firstly it is pointed out that the characterising part of the claim stores "a" channel of interest, rather than "the" channel, thus not delimitating over D1. Moreover, storing just one channel of interest would be an obvious special case of D1. The applicant also argues that D1 sorts the channels with respect to total reception time, which is not the case in the invention. However, this argument, besides relating to a "negative" feature that is not claimed, appears to be wrong because claim 11 of the application contains the feature of storing the channels "on the basis of reception duration" which appears to cover sorting.

7. It appears that in order to correspond to the applicant's idea of the invention, claim 1 requires details relating to the steps of recalling and using the "channel of interest", at least. However, these details are not in any of the claims on file.
8. The methods of determining the reception duration given in claims 2 to 4 are considered to be obvious matters of design and accordingly not to add anything inventive.
9. D1 discloses using a variable time interval, so that claim 5 is not considered to be new. The different time intervals in claims 6 and 7 are considered to follow as obvious possibilities and therefore not to add anything inventive.
10. The various possibilities for storing the channels of interest in claims 8 to 12 are considered to be disclosed in D1 and therefore not to add anything new. Those in claims 13 and 14 are considered to be obvious matters of design and therefore not to add anything inventive.
11. The channel identifiers labelled with reference sign 506 in Figure of D1 are considered to fall under the definition of the "video information" and "pictures" in claims 15 to 17, so that these claims are not considered to add anything new.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/06478

12. The generally known features of using voice input and using "channel-specific data" in claims 18 and 19 are not considered to add anything inventive.
13. The idea of defining a channel as being not of interest if the reception duration is too low as in claim 20 is not considered to be new essentially for the reasons given in connection with claim 1. In D1, if the reception duration is below the predetermined time, it is not stored and is by definition "not of interest". The applicant argues that the feature enables automatic skipping to the next channel during zapping if a "not interesting program" is found. However, even if this were correctly claimed, it would appear to be another invention and the question of unity would arise.

Concerning point VII of the report:

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor are these documents identified therein.
2. A document reflecting the prior art described on page 1 is not identified in the description (Rule 5.1(a)(ii) PCT).
3. The independent claims are not considered to be in the correct two-part form, in accordance with Rule 6.3(b) PCT. As mentioned above, the prior art discloses determining when the reception duration exceeds a predetermined time interval and then storing the channel.

Concerning point VIII of the report:

1. Claim 20 defines the condition "as soon as the reception duration falls below a predetermined time". This is not considered to be clear because the expression "as soon as" implies a forward progression of time for which the expression "falls below" makes no sense.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
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| Applicant's or agent's file reference PD980061 | FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. | |
| International application No. PCT/EP 99/ 06478 | International filing date (day/month/year) 03/09/1999 | (Earliest) Priority Date (day/month/year) 10/09/1998 |
| Applicant DEUTSCHE THOMSON-BRANDT GMBH et al. | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 99/06478

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N5/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|------------------------|
| X | WO 98 21877 A (HYUNDAI ELECTRONICS AMERICA) 22 May 1998 (1998-05-22) | 1, 2, 4-6, 8-12, 19-21 |
| A | page 6, line 12 - line 34 page 7, line 10 - line 17 page 8, line 12 - page 12, line 5; figures 2, 3, 5 | 3, 7, 13-16 |
| A | DE 44 17 634 A (GOLD STAR CO) 24 November 1994 (1994-11-24) abstract | 1, 20, 21 |
| A | US 5 323 240 A (AMANO TOSHIO ET AL) 21 June 1994 (1994-06-21) the whole document | 1, 20, 21 |
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Date of the actual completion of the international search

30 November 1999

Date of mailing of the international search report

12/01/2000

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Yvonnet, J

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 99/06478

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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| A | PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 164447 A (MATSUSHITA ELECTRIC IND CO LTD), 19 June 1998 (1998-06-19) abstract --- | 1, 20, 21 |
| P, X | DATABASE WPI Derwent Publications Ltd., London, GB; AN 1999-504998 XP002124309 & JP 11 220673 A (NEC), 10 August 1998 (1998-08-10) abstract ----- | 1, 20, 21 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 99/06478

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| DE 4417634 | A | 24-11-1994 | KR 9514578 B | 08-12-1995 |
| | | | JP 7050788 A | 21-02-1995 |
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| JP 10164447 | A | 19-06-1998 | NONE | |
| JP 11220673 | A | 10-08-1999 | JP 2880988 B | 12-04-1999 |

Patent Abstracts of Japan

PUBLICATION NUMBER : 10164447
 PUBLICATION DATE : 19-06-98

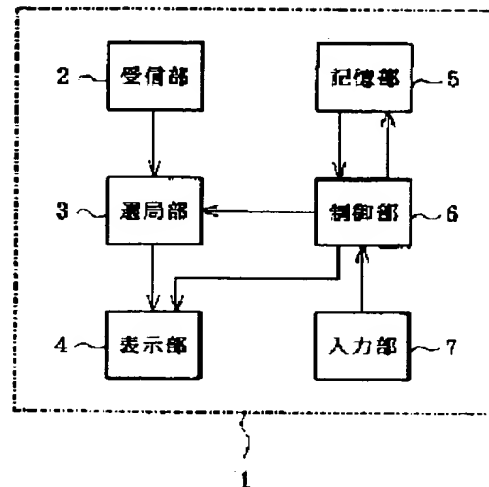
APPLICATION DATE : 25-11-96
 APPLICATION NUMBER : 08313984

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : NAGAYASU MASARU;

INT.CL. : H04N 5/44 G06F 3/02 G06F 3/14
 H03J 5/02 H04N 5/445

TITLE : BROADCAST RECEIVER



ABSTRACT : PROBLEM TO BE SOLVED: To provide the broadcast receiver by which a registration operation of a channel in multi-channel broadcast is facilitated, and the selective operation of the channel is facilitated by displaying automatically channel registration process and deleting automatically the channel with a low frequency of selection.

SOLUTION: When a channel not registered in a storage section 5 is continuously selected for 20min or longer, a control section 6 controls a display section 4 for displaying a procedure of registering the channel being selected to the storage section 5, and the display section 4 displays a message recommending channel registration onto a display menu. Furthermore, when the number of maximum registration channels capable of being stored in the storage section is exceeded by registration of a new channel in response to a channel registration instruction, the control section 6 controls the storage section 5 to delete a channel, whose frequency of selection is lower among channels having a already been registered and to store the new channel.

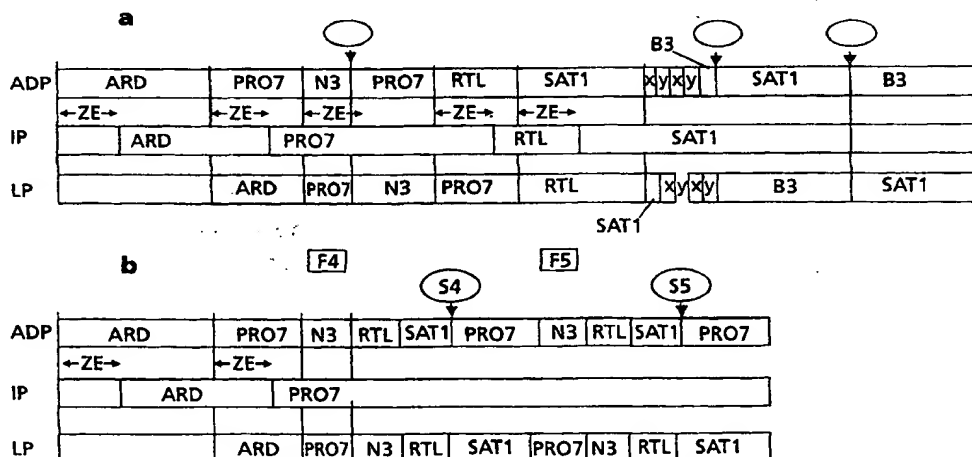
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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|---|--|--|---|
| (51) International Patent Classification ⁷ : H04N 5/50 | | A1 | (11) International Publication Number: WO 00/16549 |
| | | | (43) International Publication Date: 23 March 2000 (23.03.00) |
| (21) International Application Number: PCT/EP99/06478 | | (81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). | |
| (22) International Filing Date: 3 September 1999 (03.09.99) | | | |
| (30) Priority Data: 198 41 298.3 10 September 1998 (10.09.98) DE | | | |
| (71) Applicant (for all designated States except US): DEUTSCHE THOMSON-BRANDT GMBH [DE/DE]; Hermann-Schwer-Str. 3, D-78048 Villingen-Schwenningen (DE). | | | |
| (72) Inventor; and | | Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. | |
| (75) Inventor/Applicant (for US only): MABON, Jean-Bernard [FR/DE]; Am Loretowäldchen 23, D-78050 Villingen-Schwenningen (DE). | | | |
| (74) Agent: ROSSMANITH, Manfred; Deutsche Thomson-Brandt GmbH, Licensing & Intellectual Property, Karl-Wiechert-Allee 74, D-30625 Hannover (DE). | | | |

(54) Title: METHOD FOR STORAGE OF A CHANNEL FOR A CONSUMER ELECTRONICS APPLIANCE



(57) Abstract

In consumer electronics appliances, for example in the case of a television set, it is known for there to be a key on the remote control which allows the user to switch over to the previously selected channel. However, a disadvantage of this conventional solution is that, once the user has jumped from one channel to the next, which is called zapping, the television recognizes only the last channel in the zapping sequence as the last channel in each case. The invention is based on the object of providing an improved method for storage of a channel. The method according to the invention for storage of a channel in a consumer electronics appliance which can be switched over between different channels is distinguished in that the reception duration of the current channel is determined, and in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.

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INTERNATIONAL SEARCH REPORT

Inte .c Application No

PCT/EP 99/06478

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/50

According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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| A | page 6, line 12 - line 34 page 7, line 10 - line 17 page 8, line 12 -page 12, line 5; figures 2,3,5 | 3,7, 13-16 |
| A | DE 44 17 634 A (GOLD STAR CO) 24 November 1994 (1994-11-24) abstract | 1,20,21 |
| A | US 5 323 240 A (AMANO TOSHIO ET AL) 21 June 1994 (1994-06-21) the whole document | 1,20,21 |
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Date of the actual completion of the international search

30 November 1999

Date of mailing of the international search report

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Name and mailing address of the ISA

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Yvonnet, J

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 99/06478

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| A | PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 164447 A (MATSUSHITA ELECTRIC IND CO LTD), 19 June 1998 (1998-06-19) abstract --- | 1, 20, 21 |
| P, X | DATABASE WPI Derwent Publications Ltd., London, GB; AN 1999-504998 XP002124309 & JP 11 220673 A (NEC), 10 August 1998 (1998-08-10) abstract ----- | 1, 20, 21 |

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/EP 99/06478

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| WO 9821877 A | 22-05-1998 | US 5801747 A AU 7182598 A | 01-09-1998 03-06-1998 |
| DE 4417634 A | 24-11-1994 | KR 9514578 B JP 7050788 A | 08-12-1995 21-02-1995 |
| US 5323240 A | 21-06-1994 | JP 5227494 A US 5564088 A US 5697077 A | 03-09-1993 08-10-1996 09-12-1997 |
| JP 10164447 A | 19-06-1998 | NONE | |
| JP 11220673 A | 10-08-1999 | JP 2880988 B | 12-04-1999 |

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| (51) International Patent Classification ⁶ : H04N | A2 | (11) International Publication Number: WO 98/21877 (43) International Publication Date: 22 May 1998 (22.05.98) |
| (21) International Application Number: PCT/US97/20995 (22) International Filing Date: 14 November 1997 (14.11.97) (30) Priority Data: 08/751,537 15 November 1996 (15.11.96) US (71) Applicant: HYUNDAI ELECTRONICS AMERICA [US/US]; 3101 North First Street, San Jose, CA 95134 (US). (72) Inventor: BEDARD, Karen; 2275 Glenkirk Drive, San Jose, CA 95124 (US). (74) Agents: STARK, Jon, R. et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US). | | (81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i> |
| (54) Title: METHOD AND APPARATUS FOR CREATING A TELEVISION VIEWER PROFILE | | |
| <p>Figure 100 is a television viewer profile chart. The horizontal axis represents time, with major ticks at 9:00, 10:00, 11:00, 12:00, 1:00, 2:00, and 3:00. The vertical axis lists four channels: ESPN, SCI-FI, CNN, and DSC. Shaded rectangles indicate viewing periods. A bracket labeled 102 groups the viewing periods from 9:00 to 12:00. A bracket labeled 104 groups the viewing periods from 12:00 to 3:00. A bracket labeled 100 groups the entire chart area.</p> | | |
| (57) Abstract <p>A method and apparatus are disclosed for monitoring television viewing activity to determine preferred categories of programming and preferred channels of a viewer. To facilitate viewer access to preferred programming, the display of an electronic program guide may be configured in accordance with the monitored viewing activity to provide fast access to the preferred programming. The monitored viewing activity may also be used to provide a lock-out feature to prevent or limit the viewing of specified channels or categories of programming, or to identify and provide information of interest from the internet. In yet another embodiment of the invention, a viewer may automatically circulate through his or her preferred programming, as determined by monitoring the viewing activity of that viewer.</p> <p style="text-align: right;">RCA PR 80061 CITED BY APPLICANT</p> | | |

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